Art Unit: 2169

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes
and/or additions be unacceptable to applicant, an amendment may be filed as provided
by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be
submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Jordan on 30 June 2011.

- The application has been amended as follows:
- (Currently Amended) A machine-implemented method, comprising:
 receiving, at a computer system, user-generated data through a user interface,
 the user-generated data comprising:

a primary term that represents a new first concept to be added to an existing machine-readable network of interrelated concepts,

one or more other terms that are synonymous with the primary term, and that also represent the new first concept,

information specifying at least one $\underline{\text{hierarchical}}$ relationship between the new first concept and a second concept,

information specifying a relationship type of the at least one hierarchical relationship, and information specifying a strength of the at least one hierarchical
relationship in a direction from the new first concept to the second concept, and
information specifying a strength of the at least one hierarchical
relationship in a direction from the second concept to the new first concept;

receiving, at the computer system, a user request to add the new first concept to the existing machine-readable network of interrelated concepts; and

adding, at the computer system, the new first concept in the existing machinereadable network of interrelated concepts by adding the primary term, the one or more other terms, the information specifying the relationship, the information specifying the relationship type, and the the information specifying the strength of the at least one relationship in the direction from the new first concept to the second concept, and the information specifying the strength of the at least one hierarchical relationship in the direction from the second concept to the new first concept, to the existing machinereadable network of interrelated concepts,

wherein the strength in the direction from the new first concept to the second concept is different than a-strength the strength in a direction from the second concept to the new first concept.

(Cancelled)

Art Unit: 2169

3. (Previously Presented) The method of claim 1, wherein the user-generated data

comprises information characterizing a part of speech of the new first concept.

(Cancelled)

5. (Previously Presented) The method of claim 1, wherein the relationship type is

selected from the group consisting of: "kind of," "has kind," "part of," "has part,"

"member of," "has member," "substance of," "has substance," "product of," and "has

product."

6. (Previously Presented) The method of claim 1, wherein the user-generated data

comprises information that characterizes a frequency of the primary term.

7. (Previously Presented) The method of claim 1, wherein the user-generated data

comprises information that characterizes a likelihood that the primary term and the

other terms imply the new first concept.

8. (Previously Presented) The method of claim 1, wherein the user-generated data

comprises information that characterizes a breadth of the new first concept.

- (Previously Presented) The method of claim 1, wherein the user-generated data comprises information that indicates that the new first concept is offensive.
- (Previously Presented) The method of claim 1, wherein the user-generated data comprises information that describes the new first concept.
- 11. (Previously Presented) The method of claim 1, wherein the user-generated data comprises context information.
- 12. (Currently Amended) A machine-implemented method, comprising: receiving, from a user interacting with a user interface of a client processor, a request to edit a first concept in an existing machine-readable network of interrelated concepts:

displaying a particular group of synonyms that defines the first concept and a description of one or more existing <u>hierarchical</u> relationships between the first concept and other concepts in the existing machine-readable network of interrelated concepts; receiving user-generated data comprising:

information specifying at least one new $\underline{\text{hierarchical}}$ relationship between the first concept and a second concept,

information specifying a relationship type of the at least one new hierarchical relationship, relationship, and

Art Unit: 2169

information specifying a strength of the at least one new <u>hierarchical</u> relationship in a direction from the first concept to the second concept, <u>and</u>

information specifying a strength of the at least one new hierarchical relationship in a direction from the second concept to the first concept; and

transmitting a request for a semantic engine to update the machine-readable network of interrelated concepts to reflect the at least one new relationship, the relationship type, the and the strength of the at least one new hierarchical relationship in the direction from the first concept to the second concept, and the strength of the at least one new hierarchical relationship in the direction from the second concept to the first concept, without updating a strength in a direction from the second concept to the first concept.

wherein the strength of the at least one new hierarchical relationship in the direction from the first concept to the second concept is different than the strength of the at least one new hierarchical relationship in the direction from the second concept to the first concept.

- 13. (Cancelled)
- 14. (Cancelled)
- (Cancelled)

16. (Previously Presented) The method of claim 12, wherein the relationship type is selected from the group consisting of: "kind of," "has kind," "part of," "has part," "member of," "has member," "substance of," "has substance," "product of," and "has product."

- (Previously Presented) The method of claim 12, wherein the user-generated data comprises information that characterizes a frequency of the primary term.
- 18. (Previously Presented) The method of claim 12, wherein the user-generated data comprises information that characterizes a likelihood that a primary term and related terms imply the first concept.
- (Previously Presented) The method of claim 12, wherein the user-generated data comprises information that characterizes a breadth of the first concept.
- 20. (Currently Amended) One or more computer-readable storage devices comprising program code tangibly embodied in machine-readable format and operable to cause one or more machines to perform operations, the operations comprising:

receiving user-generated data through a user interface, the user-generated data comprising:

a primary term that represents a new first concept to be added to an existing machine-readable network of interrelated concepts,

one or more other terms that are synonymous with the primary term, $% \frac{\partial f}{\partial x} = \frac{\partial f}{\partial x} + \frac{\partial f}{\partial x} = \frac$

information specifying at least one $\underline{\text{hierarchical}}$ relationship between the new first concept and a second concept,

 $\label{eq:continuous} \text{information specifying a relationship type of the at least one} \\ \underline{\text{hierarchical}} \text{ relationship, and}$

information specifying a strength of the at least one https://nical.org/nical.o

receiving a user request to add the new first concept to the existing machinereadable network of interrelated concepts; and

adding the new first concept in the existing machine-readable network of interrelated concepts by adding the primary term, the one or more other terms, the information specifying the relationship, the information specifying the relationship type, and the the information specifying the strength of the at least one relationship in the direction from the new first concept to the second concept, and the information specifying the strength of the at least one hierarchical relationship in the direction from

Art Unit: 2169

the second concept to the new first concept, to the existing machine-readable network of interrelated concepts,

wherein the strength in the direction from the new first concept to the second concept is different than a-strength the strength in a direction from the second concept to the new first concept.

21. (Cancelled)

22. (Previously Presented) The computer-readable storage devices of claim 20, wherein the user-generated data comprises information that characterizes a part of speech of the new first concept.

23. (Cancelled)

24. (Previously Presented) The computer-readable storage devices of claim 20, wherein the relationship type is selected from the group consisting of: "kind of," "has kind," "part of," "has part," "member of," "has member," "substance of," "has substance," "product of," and "has product."

- 25. (Previously Presented) The computer-readable storage devices of claim 20, wherein the user-generated data comprises information that characterizes a frequency of the primary term.
- 26. (Previously Presented) The computer-readable storage devices of claim 20, wherein the user-generated data comprises information that characterizes a likelihood that the primary term and the related terms imply the new first concept.
- 27. (Previously Presented) The computer-readable storage devices of claim 20, wherein the user-generated data comprises information that characterizes a breadth of the new first concept.
- 28. (Previously Presented) The computer-readable storage devices of claim 20, wherein the user-generated data comprises information that indicates that the new first concept is offensive.
- 29. (Previously Presented) The computer-readable storage devices of claim 20, wherein the user-generated data comprises information describing the new first concept.

- (Previously Presented) The computer-readable storage devices of claim 20,
 wherein the user-generated data comprises context information.
- 31. (Currently Amended) One or more computer-readable storage devices comprising program code tangibly embodied in machine-readable format and operable to cause one or more machines to perform operations, the operations comprising:

receiving, from a user interacting with a user interface of a client processor, a request to edit a first concept in an existing machine-readable network of interrelated concepts;

displaying a particular group of synonyms that defines the first concept and a description of one or more existing <u>hierarchical</u> relationships between the first concept and other concepts in the existing machine-readable network of interrelated concepts; receiving user-generated data comprising:

information specifying at least one new $\underline{\text{hierarchical}}$ relationship between the first concept and a second concept,

information specifying a relationship type of the at least one new hierarchical relationship, relationship, and

information specifying a strength of the at least one new hierarchical
relationship in a direction from the first concept to the second concept, hierarchical
relationship in a direction from the second concept to the first concept; and

Art Unit: 2169

transmitting a request for a semantic engine to update the machine-readable network of interrelated concepts to reflect the at least one new relationship, the relationship type, the and the strength of the at least one new hierarchical relationship in the direction from the first concept to the second concept, and the strength of the at least one new hierarchical relationship in the direction from the second concept to the first concept, without updating a strength in a direction from the second concept to the first concept,

wherein the strength of the at least one new hierarchical relationship in the direction from the first concept to the second concept is different than the strength of the at least one new hierarchical relationship in the direction from the second concept to the first concept.

- (Cancelled)
- (Cancelled)
- 34. (Cancelled)
- 35. (Previously Presented) The computer-readable storage devices of claim 31, wherein the relationship type is selected from the group consisting of: "kind of," "has

kind," "part of," "has part," "member of," "has member," "substance of," "has substance," "product of," and "has product.".

- 36. (Previously Presented) The computer-readable storage devices of claim 31, wherein the user-generated data comprises information that characterizes a frequency of the primary term.
- 37. (Previously Presented) The computer-readable storage devices of claim 31, wherein user-generated data comprises information that characterizes a likelihood that a primary term and related terms imply the first concept.
- 38. (Previously Presented) The computer-readable storage devices of claim 31, wherein user-generated data comprises information that characterizes a breadth of the first concept.

39 - 42. (Cancelled)

43. (Previously Presented) The method of claim 1, wherein creating the new first concept in the existing machine-readable network of interrelated concepts comprises storing the new first concept in a concept database stored at the computer system. Application/Control Number: 10/748,399

Art Unit: 2169

44. (Cancelled)

45. (Previously Presented) The computer-readable storage devices of claim 20,

wherein creating the new first concept in the existing machine-readable network of

Page 14

interrelated concepts comprises storing the new first concept in a concept database

stored at one or more of the computer-readable storage devices.

46. (Previously Presented) The computer-readable storage devices of claim 31,

wherein updating the machine-readable network of interrelated concepts comprises

updating a concept database stored at one or more of the computer-readable storage

devices.

47 - 54. (Cancelled)

55. (Currently Amended) A system comprising:

one or more computers; and

a computer-readable medium coupled to the one or more computers having

instructions stored thereon which, when executed by the one or more computers, cause

the one or more computers to perform operations comprising:

receiving, at a computer system, user-generated data through a user

interface, the user-generated data comprising:

a primary term that represents a new first concept to be added to an existing machine-readable network of interrelated concepts,

one or more other terms that are synonymous with the primary term, and that also represent the new first concept,

information specifying at least one <u>hierarchical</u> relationship between the new first concept and a second concept,

 $\label{eq:continuous} \text{information specifying a relationship type of the at least one} \\ \underline{\text{hierarchical}} \text{ relationship, and}$

information specifying a strength of the at least one hierarchical relationship in a direction from the new first concept to the second concept, and

information specifying a strength of the at least one hierarchical relationship in a direction from the second concept to the new first concept; receiving, at the computer system, a user request to add the new

first concept to the existing machine-readable network of interrelated concepts; and

adding, at the computer system, the new first concept in the existing machine-readable network of interrelated concepts by adding the primary term, the one or more other terms, the information specifying the relationship, the information specifying the relationship type, and the the information specifying the strength of the at least one relationship in the direction from the new first concept to the second concept, and the information specifying the strength of the at least one hierarchical

Application/Control Number: 10/748,399

Art Unit: 2169

 $\underline{\text{relationship in the direction from the second concept to the new first concept,}} \text{ to the}$

existing machine-readable network of interrelated concepts,

wherein the strength in the direction from the new first concept to

Page 16

the second concept is different than a strength the strength in a direction from the

second concept to the new first concept.

56. (Previously Presented) The system of claim 55, wherein the user-generated data

comprises information characterizing a part of speech of the new first concept.

57. (Cancelled)

58. (Previously Presented) The system of claim 55, wherein the relationship type is

selected from the group consisting of: "kind of," "has kind," "part of," "has part,"

"member of," "has member," "substance of," "has substance," "product of," and "has

product."

59. (Previously Presented) The system of claim 55, wherein the user-generated data

comprises information that characterizes a frequency of the primary term.

- 60. (Previously Presented) The system of claim 55, wherein the user-generated data comprises information that characterizes a likelihood that the primary term and the other terms imply the new first concept.
- 61. (Previously Presented) The system of claim 55, wherein the user-generated data comprises information that characterizes a breadth of the new first concept.
- 62. (Previously Presented) The system of claim 55, wherein the user-generated data comprises information that indicates that the new first concept is offensive.
- 63. (Previously Presented) The system of claim 55, wherein the user-generated data comprises information that describes the new first concept.
- 64. (Previously Presented) The system of claim 55, wherein the user-generated data comprises context information.
- 65. (Currently Amended) A system comprising:

one or more computers; and

a computer-readable medium coupled to the one or more computers having instructions stored thereon which, when executed by the one or more computers, cause the one or more computers to perform operations comprising:

receiving, from a user interacting with a user interface of a client processor, a request to edit a first concept in an existing machine-readable network of interrelated concepts;

displaying a particular group of synonyms that defines the first concept and a description of one or more existing <u>hierarchical</u> relationships between the first concept and other concepts in the existing machine-readable network of interrelated concepts; receiving user-generated data comprising:

information specifying at least one new <u>hierarchical</u> relationship between the first concept and a second concept,

information specifying a relationship type of the at least one new hierarchical relationship, relationship, and

information specifying a strength of the at least one new <u>hierarchical</u> relationship in a direction from the first concept to the second concept, <u>and</u>

<u>information specifying a strength of the at least one new hierarchical</u>

<u>relationship in a direction from the second concept to the first concept</u>; and

transmitting a request for a semantic engine to update the machine-readable network of interrelated concepts to reflect the at least one new relationship, the relationship type, the and the strength of the at least one new hierarchical relationship in the direction from the first concept to the second concept, and the strength of the at least one new hierarchical relationship in the direction from the second concept to the

first concept, without updating a strength in a direction from the second concept to the first concept,

wherein the strength of the at least one new hierarchical relationship in the direction from the first concept to the second concept is different than a strength of the at least one new hierarchical relationship in the direction from the second concept to the first concept.

- 66. (Cancelled) The system of claim 65, wherein the new relationship comprises a lateral bond that indicates a proximity of the first concept to the second concept in semantic space.
- 67. (Previously Presented) The system of claim 65, wherein the relationship type is selected from the group consisting of: "kind of," "has kind," "part of," "has part," "member of," "has member," "substance of," "has substance," "product of," and "has product."
- 68. (Previously Presented) The system of claim 65, wherein the user-generated data comprises information that characterizes a frequency of the primary term.

Art Unit: 2169

69. (Previously Presented) The system of claim 65, wherein the user-generated data comprises information that characterizes a likelihood that a primary term and related

terms imply the first concept.

 (Previously Presented) The system of claim 65, wherein the user-generated data comprises information that characterizes a breadth of the first concept.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL KIM whose telephone number is (571)272-2737. The examiner can normally be reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2169

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jacob F Betit/ Primary Examiner, Art Unit 2169

/PK/